

Recommendation 12-4R3

**METHODS FOR REDUCTION OF POTENTIAL INTERFERENCE BETWEEN
SYSTEMS IN THE SPACE SCIENCE SERVICES IN DENSELY OCCUPIED BANDS**

The SFCG,

CONSIDERING

- a) that certain frequency bands allocated to the science services are very densely occupied;
- b) that frequency management methods, such as advance planning of a frequency assignment, may not always be successful because of the prevailing occupation of the bands;
- c) that the temporary switch-off of emissions from a spacecraft is a recognized method to reduce the number of potential cases of interference;
- d) that SFCG Procedures for Inter-Agency Frequency Coordination (RES A12-1) foresee that spacecraft transmissions can be temporarily interrupted in case of conflict among several missions and provides priority guidelines for such cases;
- e) that the RR 22.1, Cessation of Emissions, demands that spacecraft be equipped with devices ensuring immediate cessation of emissions whenever required;

RECOMMENDS

- 1. that, as a general means of reducing potential interference in densely occupied bands, such as the 2200 - 2290 MHz and the 8025-8400 MHz bands, space agencies limit their space-Earth transmissions to those periods when they are in contact with a receiving earth station or a data relay satellite;
- 2. that, as a means to reduce the number of potential interference cases among spacecraft, space agencies be prepared to temporarily switch off emissions from the spacecraft concerned, in accordance with the priority guidelines laid down in Chapter 4 of the SFCG Procedures for Inter-Agency Frequency Coordination (RES A12-1);
- 3. that the devices on spacecraft used to switch off emissions postulated by RR 22.1 be designed with the highest practicable level of reliability and be qualified for a large number of switching cycles during the lifetime of the spacecraft.